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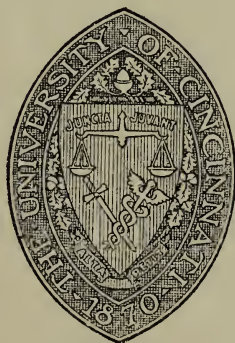
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Knowledge in the Guidance of Communities

AN ADDRESS BY

ALBERT SHAW

At the Commencement Exercises of the University
of Cincinnati, June 14, 1913



PUBLISHED BY THE UNIVERSITY OF CINCINNATI
CINCINNATI, OHIO

1913

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KNOWLEDGE IN THE GUIDANCE OF COMMUNITIES

ALBERT SHAW

It has long seemed to me that the one thing that is the especial mark of statesmanship is timeliness. The visionary has his place, but his ideas do not fit the needs of his own generation. The reformer's appeal may be both premature and ill-proportioned. That is to say, his proposals may not be really directed towards the fundamental needs of society. But the statesman has not only a grasp of principle and public policy, but he has a sure instinct for times and seasons. He knows *when*, as well as *why* and *how*.

You have formed, here, a statesmanlike conception of the value and meaning of high knowledge in many forms, applied to the whole life of a community. Further than that, you have chosen a most auspicious period of time in which to give that conception a bold, unhesitating application to your problems. You are holding fast to everything that is permanent in the principles of training and culture that has been associated with the higher education, but you are also breaking away from everything that is merely traditional or hampering, and that lacks value when subjected to the new tests of modern life.

An Institution for Human Service

Several important things had to come to pass before there could be much hope of success in the effort to establish an institution of learning that would relate itself to the multiform activities of a city like this,—setting standards, furnishing incentives, and translating all the new discoveries of science and the new forms of progress into terms of application to your local needs.

In the first place, the university had to change its own point of view. It had to believe more fully in the universal mission of knowledge, and to find out how to make science and culture democratic without making them superficial. The process has been a gradual one, but it has been

thorough-going and is now well-nigh complete. Universities are no longer exclusive affairs; and academic scholarship has ceased to be the mark of a separate Brahminical caste.

Even when, at an earlier time, the universities might have been willing to justify themselves by a broader and more direct service of the community, they did not know what methods to pursue. The public did not want mere triturations of the academic, and the scholars did not realize that their usefulness was to come through higher rather than through lower standards. It was not until our scientific research became very severe, and quite non-utilitarian, that it began to gain the confidence and respect which are now so generally entertained towards it.

The more extensive and thorough the work of the university laboratories in physics, chemistry, biology,—the more powerful the university became in its work as an instrument of human progress; and the better poised its professors and thinkers became in their realization that they could and must serve mankind by first serving the cause of knowledge and truth. Thus it also became apparent that they were not to serve through any cheap compromises with scholarship, but by doing the very best and highest work of which they were capable, no matter how apparently unpopular, or how remote from commercial or utilitarian application. The more truly scholarly our universities have become, the more respect they have shown for ordinary human intelligence. And the more at one they have become with the whole process of education and of life going on about them.

For Public Health and Economic Progress

The university medical school no longer thinks of its mission as confined to the task of instructing a certain number of practitioners, fit to respond to the ordinary calls for surgical and medical relief. It has a new and inspiring conception of the whole field of human health and welfare. The man of medical training becomes an officer and a servant of the public, who would so improve the environment that every child of the future may be born into a safer and better world. It is high research and thorough scholarship which have led to this new conception.

Even if the university had no other mission except to work out the countless applications of this idea that disinterested research and study may abolish prevalent diseases,

save the lives of children, and quadruple the physical and mental efficiency of the whole population, it should be plain enough to every thoughtful mind that your university would be the best investment you could possibly make as a great organized community. But the university has other new conceptions touching its duty of service to society. In its department of political and economic science, it has conceptions of justice, efficient government, wise taxation, thrifty municipal housekeeping, well-ordered industry and commerce. The more thorough and extended the inquiries and efforts of the faculties dealing with these subjects, the better able is the university to help solve the problems that present themselves to a great modern city, in its practical endeavors to attain for itself the best results of human experience elsewhere. The more profound the scholarship and research of these disinterested teachers of political science and doctrine, the more certain it is that they will be able to render true public service that shall permeate the whole body politic.

In like manner, the more thorough and advanced the work of your scholars in psychology, in the science of education, in the history of human language, art, and culture, the more certain it is that the university will know how to associate itself wisely with the work of the high schools and the elementary schools, so that throughout your whole system of public instruction you may have fruitful and successful methods, making use of the best results of mind study, child study, and educational experiment in every part of the world. Your university can serve your entire population in the sphere of education, if only it is encouraged and commanded by you to pursue its work in the highest and most unrestricted devotion to pure research and inquiry.

Theory First, Practice Afterwards

Since technological and engineering studies bear a vital relationship to the progress of modern industrial communities, it is wholly wise and proper that such studies should be maintained as a permanent part of the provision a city makes for its own future welfare and prosperity. But there is danger, sometimes, that such studies shall become so immediately practical and so narrowly professionalized that they do not keep abreast of the new discoveries and advances in their own field. I hold, therefore, that the school of engineering and technology may have most promise of future value and service when it is in close relationship with a real university. Transforming knowledge comes to us,

nowadays, as a rule, through pure research rather than through strictly practical or technical effort. The university is on the advance line of new knowledge, while the technical school is engaged rather in imparting skill in the use of things already established. When your courses of technology are brought under the immediate influence of advanced research in the various fields of physics, chemistry, and natural science, they are by far more likely to render brilliant and progressive service, and are therefore more fit to be supported by public taxation as one of the instruments used by the community to keep itself in the forefront of the world's industrial activities.

So much, then, for my first remark to the effect that the university had need to form a new conception of its duty and its power to serve the whole people.

A Public Asset, Not a Private Benefit

It is correspondingly true, in the second place, that you could not accomplish much with your municipal university, —you could not, indeed, persuade the community to adopt it, develop it, and support it,—until the popular mind had become disabused of the current idea of the university as an institution unrelated to practical things, and maintained for the few rather than the many. It was until recently a prevailing belief that universities and colleges were undemocratic in that they fostered an aristocracy of learning and culture which associated itself with an aristocracy of money and luxury, so that it increased rather than diminished the tendency to separate classes, and did not serve the community considered as a unified and organic whole.

To be sure, the university trained some lawyers, some doctors, and some clergymen. But these were looked upon as members of favored and rather exclusive callings, whose training was used for their own benefit and aggrandizement. They were regarded as men of lucrative pursuits lifted above the necessity of stern physical toil that confronted almost everybody else in our pioneer American society. There was no prejudice against learning; but the common man saw no reason for taxing himself to educate men who were going to practice learned professions and live daintily at his expense. There had to come about, on the part of the community at large, a faith in knowledge and training, and a belief that the results of modern knowledge could not be confined to individuals or classes, and that ignorance is not only costly and wasteful, but dangerous and deadly.

This belief that knowledge is an asset of the community, rather than a perquisite of the individual, has spread rapidly with the development of science. The teamster had no compelling need of knowledge other than that possessed by his class for several thousand years. But the teamster's son operates electrical machinery, and comes close to a new and transforming world of ideas. He profoundly respects the mechanical and electrical engineer; and his mind can readily be made to grasp the truth that profound research into the forces and mysteries of nature must be fraught with results of public and universal, rather than private, value. And when the common boy, intensely awake to discovery and progress in applied science, comes to grasp the meaning of experiments that have given us the automobile, the telephone, the aeroplane, and wireless telegraphy, it is not so difficult for him to believe that pure science—physical, chemical, biological—has its supreme value as giving promise of continuous future discoveries that sooner or later can be made to serve practical ends.

Treating the Community as a Whole

We were, in our pioneer days, an intensely individualistic people; but we are learning that groups and masses of men may be so associated with one another as to constitute for many purposes a real entity. The community becomes an organism. That which is good for a part of it is good for the whole. That which is harmful for a part of it is enfeebling and degrading to the whole. When medical authority proved to Munich that a pure water supply would eliminate typhoid fever which had been persistently epidemic for many years, and when administrative authority obeyed the mandates of the hygienic laboratory, the result was magical and pervasive. It formed a basis for a new municipal life and activity. It brought hope and vigor into industry and commerce, it brought students to the University of Munich, it blessed rich as well as poor. When the hygienic authorities of Hamburg demonstrated the relation of water to the spread of Asiatic cholera, and brought about the establishment of a great filtration plant to make river water innocuous, the gain to Hamburg was so complete and so beyond all analysis as to be comparable with the difference between sickness and health in one individual.

I make these very practical illustrations to show exactly what I mean when I speak of the urban community as an organism, which may be affected throughout every part by the application of high scientific knowledge to some local problem or condition.

Democracy Adopting the University

There had to be these new developments and new conceptions before the scholars on the one hand, and the larger public on the other hand, could find a basis of common understanding. It had to be perceived that everything whatever that concerns the lives and activities of human beings, is properly within the field of inquiry, and may well be subjected to the tests of improved knowledge. It had also to be realized that education is a process of the human mind, involving every member of the community, regardless of age or condition, and that its influences ought to be diffused and universal, like fresh air and pure water.

Thus we have a constant broadening of the subject-matter of instruction. We have laboratory methods of research as against mere bookishness, with the very proper result that we are sure to have a larger and a much better use of books than ever. The educational authorities have re-appraised their methods and processes, and are finding a new scale of values. Their new conceptions bring the university into harmony and sympathy with the masses. Education no longer creates a class, but unites all classes in bonds of common understanding and interest. While dealing with an ever-widening range of subject-matter, education deals above all with vital human intelligence, and with the interests of organized bodies of men. The psychologists have found acceptance for the comparatively new ideas that play and work are also involved in the education of children, and that the educational direction of communities should extend to many things beyond the curriculum of school studies. Just as soon, then, as all kinds of new knowledge could be organized and directed from a university center, it began to be possible to argue, convincingly, that a democracy's wisest investment might take shape in an institution, continuous and dynamic, with facilities for supplying to the community all the valuable ideas that science and knowledge in all other communities or countries were discovering and applying.

The Mission of State Universities

This new kind of university of the people may or may not be supported directly by public taxation, and it may or may not be chiefly related to the activities of one city or region. Its importance lies in its attitude and spirit, rather than in its external structure. But its nature and value are particularly well illustrated in the case of a number of the universities supported by American States,—the foremost

just now being found in the northwest. If I mention, for instance, the University of Wisconsin, it is not merely because it has become the fashion to refer to that particular institution. I might mention a dozen others with whose admirable service to the people of their respective States I am glad to have some acquaintance. Among the whole list, however, the University of Wisconsin seems to have been able to serve the state in the most varied and symmetrical manner.

These institutions began to serve their States powerfully when they grasped two principles that might at first have seemed either contradictory or unrelated. One of these was the principle of very high and thorough research, and the other was the principle of direct and varied public service. The university became the center of investigation and the storehouse of expert and advanced knowledge. It also became the dynamic center of a new kind of popular inspiration and teaching. And so these universities,—increasingly, from year to year,—have become centers for a propaganda of civilization.

A Propaganda of Civilization

It is highly interesting, moreover, to observe that the success of one of these State institutions in promoting the cause of improved agriculture, good roads, the public health, improved tax laws, or the better regulation of public service corporations, does not necessarily bring the institution down to the grade and method of a mere school of vocations or of applied science. The better it serves the people in these practical ways, the more certainly it lifts them up to an appreciation of the higher things in learning and culture that must inspire and guide our future civilization. It was no mere accident, but a very definite indication, when the University of Illinois, which had been especially noted for its great schools of engineering, agriculture, and applied science, early this year dedicated a large and beautiful building devoted to class rooms and special libraries for the study of the so-called "humanities,"—philosophy, languages and literature, political and social science.

Nor was it a mere circumstance in the whirligig of politics that the legislature and people of Illinois recently approved a special tax rate for the support of the university that will enormously increase its revenues and its power to serve the State. This devotion of a princely income, contributed by all of the people, to the maintenance of a central institution of learning, is the result of an experience

that has convinced the legislature and the people that they cannot afford to do without so powerful an engine of social security and progress as a university of the modern type. Furthermore, this attitude towards their universities shown by such States as Illinois, Wisconsin, Michigan, and Minnesota, is finding eager imitation in the newer States farther West and in the older States of the South,—as in Alabama, Georgia, and especially in Texas.

Small Versus Large Institutions

It is evident that the dominating position of one central State university must to a large extent be conditioned upon the precise educational history of the particular commonwealth. Even in those States where it has been comparatively natural and easy to develop the central university, it is already clear that difficulties are going to arise from the sheer mass of the students that seek instruction at one place. As the years go by, there will have to be structural changes. As respects one part or another of the work there must be decentralization, and the encouragement of locality institutions. We shall never reach finality in these things, and we shall pass through different phases.

Take the State of Ohio, for example. There was a time when the multiplicity of colleges in this State was a useful thing, because college work was limited in its necessity of paraphernalia, and the local college could give its training and influence to a maximum number of students at a minimum expense, and therefore met pioneer conditions. There followed, however, another period, in which a few colleges of the country began to acquire the equipment made necessary by the growth of modern science. Thus a new standard was set, in comparison with which the multitude of small colleges in Ohio and elsewhere seemed lacking in advantages and unfit to survive. As regards these small institutions, the larger world of education adopted a tone of mild disparagement, if not of entire contempt.

Some rather startling consequences ensued, which brought us into a third and transitional period. In this third period such colleges as Harvard, Yale, and Princeton, assumed an undue prestige and began to bid for students from all parts of the country, as against the smaller colleges. The large institutions soon found themselves with enormous bodies of students, the sons of the rich and the well-to-do from all parts of the country; and they were not adequately provided with facilities for giving educational

care and direction to so many. The small colleges, on the other hand, had to make a brave fight to justify their further existence. They filled their faculties with young men trained as specialists in their subjects of instruction; they strained their resources to provide laboratories and modern facilities; and they found that their graduates began to take honors wherever they went for professional or post-graduate work.

The great colleges, meanwhile, having stimulated progress everywhere else, had pursued a mistaken policy by means of which they had landed themselves in a veritable predicament. They had neither the educational system nor the financial resources for dealing with their throngs of undergraduates. They are perceiving their mistake, are now developing their strictly advanced and university work, and are trying to bring some discipline and order into the chaos of their undergraduate departments. Exactly what is to become of the entity known as the American college remains to be seen. Its traditional four years of cultural study may have to be shortened, or in some way modified. But there need be no doubt as to the value and permanence of the institution that is established as the scientific and cultural center of a particular community like your own. Its forms and methods can be altered in future generations to meet changed conditions, but its authority and service will become greater rather than less as time elapses. There will always be new generations to receive the transmitted culture of those that have preceded, and there will always be new problems to be studied and met.

Value of Education at Home

As a mere parenthesis,—a remark in passing,—let me say that I have great faith in the institution of learning so placed as to serve the largest possible number of people in their own homes. I am no great believer in the cloister, in the barracks, or in the dormitory. I am not in the least convinced that there is much gain, either for the individual or for society, in the scheme that sends the boy a long ways from his family or from his home town, in order that he may gain some education from books, laboratories, and lectures. I prefer to think of education as a continuous and unbroken process, from the cradle to the grave, and I see no value of an essential or compelling sort in the old tradition which has come down from the monastic life of the Middle Ages that requires the student to withdraw from

the world into a cloistered or segregated fellowship of scholastics and their disciples.

I am aware that circumstances alter cases, and I am only speaking of these questions in their general bearing and not in their individual application. No one can more strongly believe than I do in the value of travel and observation, and in the enlargement that may come to the mind and the soul from change of environment. But I am strongly inclined to the opinion that through most of the instructional period of youth there is more to be gained by residence in one's own family or in one's own community, than by the process of arbitrary transplantation, or the change from home life to a school dormitory in a distant State. I believe in the close, daily relationships of work, play, study, and civic or neighborhood life. As years go on we shall find ways more and more to turn the workshop into a school; to turn the school into a workshop; to bring at every period of youth the valuable elements of play and study and efficient work into right relationships with one another, for the development of all young people, whether their families be rich or poor.

Advantages of the City University

To return from this digression, I am confident that the institution of higher learning which identifies itself fully with a representative and growing city like Cincinnati must soon find that it has the maximum opportunity for usefulness. It is relieved of many practical difficulties that confront certain of our universities that are segregating large bodies of students at some remote and distinctively educational point. Not only must instruction be provided in such cases, but also dormitories for thousands, and all the means and conditions of life. Your university, by contrast, may increase its numbers without such embarrassment; for an urban region of half a million people can readily provide house room and board for a few thousand students.

For its scientific and engineering work your university must, indeed, have certain laboratories, shops, and facilities. But it can also increasingly avail itself, through mutually useful affiliations, of the varied shops and laboratories of this prosperous industrial region. There must be certain academic arrangements for the instruction of students in medicine and surgery, and in those subjects relating to public health and the prevention of disease. But a university that belongs to the city, and is part and parcel of its

collective agencies, can always avail itself of the clinical opportunities of the city's great hospitals and of the administrative experience afforded by the city's health department and related municipal services. Students of law, politics, and the principles of government will always have opportunity at close range to observe the working of institutions, in the courts of justice and in the ordering of municipal affairs. There is no profession or department of study which cannot find much to aid and stimulate it in the complex activities and interests of a city like this.

Cities have existed through all the known ages of history. But the modern commercial and industrial town is a distinct creation of our present conditions. Its problems are new, and they are very much alike in different parts of the world. Regardless of the antiquity of its nucleus, the typical European center of industry is as modern in its phenomena as the American city. The English and German manufacturing towns have grown with great rapidity for the same reasons of an economic nature that have impelled the growth of our American centers. Cincinnati had a period of rapid growth and unrivaled progress during the first half of the nineteenth century, by reason of conditions that were temporary in the very nature of the case. The great West had yet to be opened up by the construction of a hundred thousand miles of railroad, and the homesteading of many millions of acres of rich prairie lands. Chicago and St. Louis in their turn grew to be mighty centers of population and trade. A later period of development in iron and steel manufacture brought forward Pittsburg and Cleveland again to outrival Cincinnati, which had led them all until the beginning of an era that seems only a few days in the retrospect.

The Problems of Maturity in America

But the pioneer century is ended, the Westward tide has begun to ebb, and we are now facing what for us in America is a new set of problems. These are the problems that have to do, not with the opening up of new fields and the mushroom growth of new towns, but with the finer and better cultivation of old fields, and the reconstruction on better and more permanent lines of our old towns. Our problems, in other words, are those that are confronting the people of European countries.

Denmark had been farmed for many hundreds of years, but the present generation has found means to install a new,

scientific agriculture that has given a hopeful face to the life of all the people, whether of country or of town. Copenhagen and Stockholm are old capitals and centers of trade, but they are quite new and up-to-date in their streets and drainage, their architecture, and all their municipal and social appointments. There have been towns and cities through twenty centuries along the course of the river Rhine, but those places have become completely transformed during the past thirty or forty years. They are centers of music, art, culture, and pleasure, as well as of financial and commercial strength and growth. These places have been touched by the wand of scientific knowledge, applied in a hundred ways to the physical and social needs of populations massed in modern towns.

As one looks into the future, it is plain enough that a lack of population is not to be the cause of our undoing. Wars, famines, pestilences, are not to decimate mankind as in earlier periods. Our real problem is not how to double the population of our city in a decade or two, but how to provide so well for our population that its health and efficiency may be much improved and its comfort and happiness enhanced in a marked degree. I am well aware that there is something that ministers to American pride in sheer aggrandizement as proved by the census count, the building permits, and the bank clearings. But the advantages to a city in very rapid growth may be offset by many disadvantages. The sudden massing of half a million or a million people where there had been only half or a quarter as many, subjects the community to a great strain of its resources. It must provide streets, sewers, public schools, water and light, police service, fire protection, and much else besides; and it must suffer almost inevitably from the ill effects of overcrowding and from makeshift street and housing systems that interfere with a wise and normal development.

Cincinnati's Fortunate Development

From many standpoints it is fortunate for Cincinnati not to have developed as rapidly as some other cities. Its pioneers and early leaders were men of great force, intelligence, and independence of character. They made Cincinnati not only a center of trade, but also an outpost of civilization. There has been continuity in the intellectual life and the cultural aims of Cincinnati, and it now becomes quite possible to federate the forces of education, art, ethical

progress, and material civilization in such a way as to make them dominant in the future progress of the city.

From this time forth Cincinnati should proceed without haste,—except in matters of emergency where the public health and welfare may be involved,—but with thoroughness and the most exacting standards. Too much is involved in the difference between a good and a bad municipal government for any modern city to endure ignorance or graft or inefficiency in the conduct of its affairs. Why should we admit without deep humiliation that they govern their cities better in England or Germany than we govern ours? It was partly due, in the earlier days, to our tradition of individualism that we did not act together in matters of common concern, but attended to our own private business, allowing the politicians to make it *their* private business to carry on *our* public affairs. But we have learned that a city is not merely a certain number of individuals living near together, but it is a corporate entity, with affairs of its own. And if these affairs are not well conducted, the whole community must suffer.

There is now available for your guidance a vast deal of recent experience. Cincinnati should utilize its university to the utmost in helping to make the world's best knowledge of civic affairs available. Where science relates to the public health, you should have scientific guidance of the very best kind, and should know how every problem has been worked out in every other city of Europe and America. If the problem is one of engineering, you should go about it in the same thorough and exacting way. Your beautiful river, to which is due the founding and early growth of your city, must through ultimate triumphs of engineering be made to serve you increasingly at all seasons, and to damage you at no season.

A Glimpse at Future Possibilities

Cincinnati is inherently richer than Frankfurt or Cologne, with a larger tributary country and a population of as much natural aptitude. But these German cities have, with amazing determination, applied university and technical education to the training of their children and the perfecting of their industries. They have also cultivated their artistic tastes, and have not lost the sense of civic love and pride. And thus, while they have become efficient and prosperous in business, they have enhanced the beauty of their cities and increased every facility for giving pleasure to the people.

Their best citizens feel it their bounden duty to help in the administration of the city's finances, public services, schools, parks, and charities. So conscious are these cities of the need of guarding their future growths that they have mapped out the surrounding lands for many miles, and indicated the future streets and boulevards, transportation routes, parks, and other permanent features that relate to the general welfare. They will not permit any private exploitation of real estate that does not conform to plans that are regarded by the public authorities as best for the future of the city.

Let it be remembered that the larger growth in population, resources, attractiveness, and diffused prosperity has come to most of the European cities in our own generation, under the new forces of progress. And let it be remembered that every phase of this desirable advancement can be shown to have resulted from the *application of knowledge to the service of communities*. We have before us, in our American cities, of which Cincinnati is so interesting and well-founded a type, a period of possible growth in comparison with which the past must seem only a rude urban beginning.

The worthy record of the nineteenth century is not, indeed, to be disdained, and every city should cherish all that has been best in its own history as an incentive, and as a source of that just pride which strengthens men in high motives. Cincinnati has behind it a good record in the field of trade and commerce. It took early rank as a center of training in theology, medicine, and law. Its relations to the East and South, as well as to the North and West, gave it importance as one of the focal points for crystallizing and disseminating public opinion. It held first rank in the propaganda of popular education, and in the writing and distribution of the school books studied by millions of children in many States.

Its expositions of industry and art, forty years ago, were the definite precursors of the more recent growth of American taste in the fine arts and in various applications of art to industry. Its leadership in music has been recognized as of service to the entire nation. Upon all these foundation-stones of effort in various fields of civilization, there can and should be built the city of the future, controlling its own growth and destiny, definitely choosing things of high quality that can bring rational benefit to all the people, rather than the delusive gains that intensify social problems and retard real progress.

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